

AMENDMENTS TO THE CLAIMS

The following Listing of Claims will replace all prior versions and listings of claims in this application.

Listing of Claims:

1. (Currently Amended) A process for preparing polytetrahydrofuran, polytetrahydrofuran copolymer, polytetrahydrofuran diester or polytetrahydrofuran monoester in a polymerization reactor by polymerizing tetrahydrofuran in the presence of at least one telogen and/or comonomer and of an acidic heterogeneous catalyst not encompassing heteropolyacids and based on activated sheet silicates or mixed metal oxides in a fluidized catalyst bed, bed at temperatures from 0 to 80 °C, wherein the fluidized bed is operated at the fluidizing point with an expansion factor of the catalyst bed being less than or equal to 1.15 or wherein the fluidized bed is operated as an expanded fluidized bed with the expansion factor of the catalyst bed being from 1.01 to 4, wherein the fluidization is carried out such that no significant amounts of catalyst are discharged from the polymerization reactor, and wherein the reactor is operated in circulation and the ratio of circulation to feed is less than or equal to 200/l.
2. (Previously Presented) The process as claimed in claim 1, wherein the fluidized bed is operated at the fluidizing point with the expansion factor of the catalyst bed being less than or equal to 1.10.
3. (Previously Presented) The process as claimed in claim 1, wherein the expanded fluidized bed is operated at the fluidizing point with the expansion factor of the catalyst bed being from 1.05 to 2.

4. (Previously Presented) The process as claimed in claim 1, wherein the catalyst used comprises at least one oxide selected from the group consisting of SiO_2 , TiO_2 , and ZrO_2 .
5. (Previously Presented) The process as claimed in claim 4, wherein the catalyst is based at least on one material selected from the group consisting of acid-activated montmorillonite, $\text{Al}_2\text{O}_3/\text{SiO}_2$, $\text{ZrO}_2/\text{SiO}_2$, WO_x/TiO_2 , and WO_x/ZrO_2 .
6. (Previously Presented) The process as claimed in claim 1, wherein the catalyst used has a pycnometric density of from 1.5 to 10 g/cm³.
7. (Previously Presented) The process as claimed in claim 1, wherein a porosity of the catalyst is from 0.05 to 5 cm³/g.
8. (Previously Presented) The process as claimed in claim 1, wherein the catalyst particles have a volume of from 500 μm^3 to 5 cm³.
9. (Previously Presented) The process as claimed in claim 1, wherein a bed density of the catalyst is from 250 to 2500 g/l.
10. (Previously Presented) The process as claimed in claim 1, wherein the reactor is flowed through from bottom to top.
11. (Previously Presented) The process as claimed in claim 1, wherein the catalyst or portions of the catalyst volume are withdrawn from and/or fed to the polymerization reactor continuously, at regular intervals or batchwise, without the reactor being emptied and/or the polymerization reaction being interrupted for this purpose.
12. (Previously Presented) The process as claimed in claim 1, wherein tetrahydrofuran is polymerized in the presence of carboxylic anhydride to give polytetrahydrofuran or

derivatives and copolymers thereof having molecular weights of from 250 to 10,000 dalton.

13. (Previously Presented) The process as claimed in claim 12, wherein the carboxylic anhydride is acetic anhydride.
14. (Canceled)
15. (Previously Presented) The process as claimed in claim 1, wherein a catalyst hourly space velocity is from 0.01 to 3.0 kg of THF/kg of catalyst per hour.
16. (Previously Presented) The process as claimed in claim 1, wherein a superficial velocity is from 0.1 to 200 m³/m² per hour.
17. (Previously Presented) The process as claimed in claim 6, wherein the catalyst used has a pycnometric density of from 2 to 7 g/cm³.
18. (Previously Presented) The process as claimed in claim 7, wherein the porosity of the catalyst is from 0.1 to 2 cm³/g.
19. (Previously Presented) The process as claimed in claim 18, wherein the porosity of the catalyst is from 0.2 to 1.5 cm³/g.